LISTING OF CLAIMS:

This listing of claims will replace all prior versions of claims in the application:

1. (Withdrawn) A method of forming high aspect ratio copper structures, comprising;

depositing a photoresist;

performing a reactive ion etch (RIE) process to form a trench;

depositing Cu;

performing single chemical mechanical polishing (CMP) process to remove selected amounts of said photoresist and Cu.

2. (Withdrawn) A method as in claim 1 wherein said single CMP is performed using a slurry comprising: $Si0_2$, Ammonium Persulfate, and Benzotriazole (BTA).

3. (Withdrawn) A method as in claim 1 further comprising depositing Al_2O_3.

4. (Withdrawn) A method as in claim 1 further comprising depositing a SiO_2 hard mask, and wherein said CMP process removes said hard mask material at substantially the same rate as said photoresist, and Cu.

5. (Withdrawn) A method as in claim 1 further comprising depositing a Ta barrier layer, and wherein said CMP process removes said Ta at substantially the same rate as said photoresist, and Cu.

6. (Cancelled)

7. (Withdrawn) method as in claim 6, wherein said depositing Cu includes sputter depositing a seed layer of Cu and then electroplating Cu.

8. (Previously presented) ~~A method as in claim 6~~ A method for forming a Cu coil for use in a magnetic head, comprising:

Forming a magnetic pole structure;

depositing a photoresist;

depositing a hard mask;

patterning said hard mask to define a coil pattern;

performing a material removal process to form at least one trench according to said coil pattern;

depositing Ta

depositing Cu; and

performing a chemical mechanical polishing (CMP) process using a slurry comprising:

Ammonium Persulfate, Benzotriazole (BTA), and SiO_2; and

~~further comprising~~

adjusting a ratio of Ammonium Persulfate and Benzotriazole (BTA) so that said CMP process removes material from said photoresist, hard mask, Ta, and Cu at the same rate.

9. (Withdrawn) A method as in claim 6 further comprising forming a magnetic pedestal and a magnetic back gap extending from said pole structure and wherein a portion of said photoresist is deposited between said magnetic pedestal and said magnetic back gap.

10. (Withdrawn) A method as in claim 10, wherein said magnetic pedestal and said back gap comprise NiFe.

11. (Withdrawn) A method as in claim 6, further comprising performing said CMP process sufficiently to form a substantially planar surface including said photoresist, and said Cu.

12. (Withdrawn) A method as in claim 6 further comprising performing said CMP process sufficiently to form a substantially planar surface including said photoresist, said Cu and said Ta.

13. (Withdrawn) A method as in claim 6, further comprising hard baking said photoresist before performing said material removal process.

14. (Withdrawn) A method as in claim 6 wherein said material removal process comprises reactive ion etching (RIE).

15. (Withdrawn) A method as in claim 6 further comprising depositing alumina (Al_2O_3).

16. (Withdrawn) A method as in claim 6 further comprising:

forming a magnetic pedestal and a magnetic back gap extending from said pole structure; and

depositing alumina (Al2O3) and wherein:

a portion of said photoresist is deposited between said magnetic pedestal and said magnetic back gap; and

said material removal process removes said material from said magnetic pedestal, magnetic back gap, photoresist, hard mask, Ta, alumina and Cu at substantially the same rate.

17. (Withdrawn) A slurry for use in chemical mechanical polishing, comprising:

SiO_2;

Amonium Persulfate ($(NH_4)_2S2O_8$); and

Benzotriazole BTA.

18. (Withdrawn) A method of forming a small Cu structure, comprising:

depositing a photoresist;

performing a material removal process form a cavity in said photoresist;

depositing Cu; and

performing a chemical mechanical polishing process using a slurry comprising:

SiO_2 Ammonium Persulfate, and Benzotriazole (BTA).